

REMARKS

Claims 1-3 and 7-11 are pending in this application, of which claim 1 has been amended.

Claims 1-3 and 7-11 were allowed. No new claims have been added.

(1) In the amendment, the formula, “ $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$ ” has been changed into “ $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-c-d}\text{O}_2$.”

(2) Original specification describes as follows:

----a mixture of lithium-manganese composite oxide and at least one of lithium-nickel composite oxide represented by a general formula $\text{LiNi}_a\text{M1}_{1-a}\text{O}_2$ (wherein M1 denotes at least one element selected from B, Mg, Al, Ti, Mn, V, Fe, Co, Cu, Zn, Ga, Y, Zr, Nb, Mo, and In, and a relationship $0 < a \leq 1$ is satisfied)----

(Original claim 1)

The non-aqueous electrolyte secondary battery according to claim 1, wherein

said lithium-nickel composite oxide is represented by the general formula $\text{LiNi}_c\text{Mn}_d\text{M3}_{1-d}\text{O}_2$ (wherein M3 denotes at least one element selected from B, Mg, Al, Ti, V, Fe, Co, Cu, Zn, Ga, Y, Zr, Nb, Mo, and In, and the relationships $0 < c \leq 1$, and $0.1 < d$ are satisfied).

(Original claim 4)

The non-aqueous electrolyte secondary battery according to claim 4, wherein

said lithium-nickel composite oxide is represented by the general formula $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$ (wherein the relationships $0 < c < 0.5$, $0.1 < d < 0.6$ are satisfied).

(Original claim 6)

Preparation of Positive Electrode

In the preparation of a positive electrode, a lithium-nickel-cobalt-manganese composite oxide represented by a general formula $\text{LiNi}_{0.4}\text{Co}_{0.3}\text{Mn}_{0.3}\text{O}_2$ and a lithium-manganese composite oxide having a spinel structure represented by the general formula $\text{Li}_{1.15}\text{Mn}_{1.85}\text{O}_4$ were mixed in a weight ratio of 1:1 to obtain a positive electrode active material.

(page 14, lines 6-12)

(3) Obvious Errors in instant claim 1

(i) The one skilled in the art recognizes that the lithium-nickel-cobalt-manganese composite oxide represented by a general formula $\text{LiNi}_{0.4}\text{Co}_{0.3}\text{Mn}_{0.3}\text{O}_2$, used in Example 1 of the present application, is not fallen with the instant claimed formula, “ $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$.” The one skilled in the art recognizes that obvious errors exist in the instant claimed formula, “ $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$.”

(ii) Original claim 4 describes that the lithium-nickel composite oxide of original claim 1, $\text{LiNi}_a\text{M1}_{1-a}\text{O}_2$, should be $\text{LiNi}_c\text{Mn}_d\text{M3}_{1-d}\text{O}_2$. Original claim 6 describes that the lithium-nickel composite oxide of claim 4, $\text{LiNi}_c\text{Mn}_d\text{M3}_{1-d}\text{O}_2$, should be $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$.

Comparing the generic formula $\text{LiNi}_a\text{M1}_{1-a}\text{O}_2$ (original claim 1) with the related “species” formulae $\text{LiNi}_c\text{Mn}_d\text{M3}_{1-d}\text{O}_2$ (original claim 4) and $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$ (original claim 6), one

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skilled in the art recognizes that the symbols used in the three formulas should have the following relationships:

$$a=c;$$

$$M1 = Mn + M3 = Mn + Co$$

$$M3 = Co$$

One skilled in the art recognize that the subscript number for $M1_{1-a}$ (original claim 1) should be the same as the total subscript numbers of Mn_dM3_{1-d} (original claim 4) and Mn_dCo_{1-d} (original claim 6), so that errors exist in the subscript numbers.

(4) Appropriate Correction

Because the specification describes Example 1 using a lithium-nickel-cobalt-manganese composite oxide represented by a general formula $LiNi_{0.4}Co_{0.3}Mn_{0.3}O_2$ (page 14, lines 6-12), one skilled in the art recognizes that $LiNi_{0.4}Co_{0.3}Mn_{0.3}O_2$ was actually used in the present invention as the lithium-nickel-cobalt-manganese composite oxide. The one skilled in the art also recognize that the instant claimed formula should cover the lithium-nickel-cobalt-manganese composite oxide actually used in Example 1.

In the formula, $LiNi_{0.4}Co_{0.3}Mn_{0.3}O_2$, the total subscript number of Ni, Co and Mn is

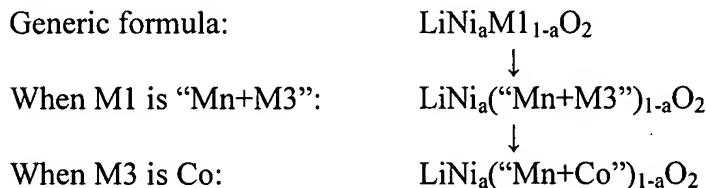
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one (1). Referring to $\text{LiNi}_a\text{M1}_{1-a}\text{O}_2$ (original claim 1), $\text{LiNi}_c\text{Mn}_d\text{M3}_{1-d}\text{O}_2$ (original claim 4), $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$ (original claim 6, instant claim 1) and $\text{LiNi}_{0.4}\text{Co}_{0.3}\text{Mn}_{0.3}\text{O}_2$ (Example 1), one skilled in the art recognizes that the solution of the obvious errors in the instant claimed formula, “ $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$ ” is also obvious and corrected by changing the subscript numbers of “ Co_{1-d} ” into “ Co_{1-c-d} .”

Thus, “ $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$ ” (original claim 6, and instant claim 1) is an obvious error of “ $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-c-d}\text{O}_2$.”

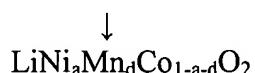
(5) Summary

The formulae of claims 4 and 6 are “species” of the generic formula of claim 1.



Thus, to be within the generic formula, the amounts of Mn and Co must add up to be “1-a.” It is clear that for Mn and Co to add to be “1-a”, if the amount of Mn is “d”, then the amount of Co must be “(1-a-d)”. $(1-a) - d = (1-a-d)$ or $d + (1-a-d) = (1-a)$.

Using $(1-a) = \text{Mn (d)} + \text{Co (1-a-d)}$, the corrected formula is:



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With a=c (the species formula of claims 4 and 6 uses “a” in place of “c”):



Therefore, $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-c-d}\text{O}_2$ of amended claim 1 is the clear and obvious correction to the obvious error. Again, this is clearly supported by the Examples.

An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of error in the specification, but appropriate correction. In re Oda, 443 F.2d 1200, 170 USPQ 268 (CCCP 1971). MPEP2163.07,II.

As explained above, one skilled in the art would recognize the existence of errors in instant claimed formula, “ $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-d}\text{O}_2$ ” and what is the appropriate correction: “ $\text{LiNi}_c\text{Mn}_d\text{Co}_{1-c-d}\text{O}_2$.” Thus, the amendment under 37CFR§1.312 should be entered.

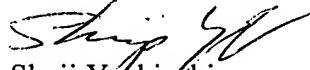
(6) In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date. If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number indicated below to arrange for an interview to expedite

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the disposition of this case. If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



Shuji Yoshizaki

Limited Recognition

Telephone: (202) 822-1100

Facsimile: (202) 822-1111

SY/mt

Attachment: Limited Recognition